MATERIAL SAFETY DATA SHEET REPORT

Report No: TH17LR-1099S

Test Engineer: Fan

Reviewed By: Prince

Approved By: Prince

Name of sample: POWER STATION


Consigner: JIAYINGMEI TECHNOLOGY CO., LIMITED

Supplier: JIAYINGMEI TECHNOLOGY CO., LIMITED

Report Date: 2018-01-03

Shenzhen Tian Hai Test Technology Co., Ltd.

Address: B4F, A3 BLDG, The Silicon Valley Power intelligent terminal industrial park, Guanlan street, Longhua district, Shenzhen

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REMARKS

1. This report is invalid without the seal of special stamp for TH test report.

2. The copy of this report is invalid without a new seal of special stamp for TH test report.

3. This report is invalid without seals of signature of editor, proofreader, examiner and approver.

4. This report is invalid if altered.

5. If there is any objection for test result, for supervision test report, please raise it in paper to the administration department who commit the sampling tusk within 15 days from receiving this test report; for other test report, please raise it to TH(Tel: 0755-86615100, Fax: 0755-86615105, E-mail: ea@tianhaitest.com) within 15 days from receiving this test report. Overdue raise of objecting shall be treated as accepting the this test report.

6. The results of the entrusted test are only suitable for the samples supplied by clients.

7. If there is no special announcement in this report, the information of consigner, supplier and samples is not identified by TH.
Section 1. Product Identification

Product Name: POWER STATION


Rated: DC 15V, 4A

Applicant Name: JIAYINGMEI TECHNOLOGY CO., LIMITED

Applicant address: 5/F G3 Building, Tianyouchuangke Industrial Zone, Fuyong, Bao'an District, Shenzhen, China

Tel: +86-755-27308225

Manufacturer Name: JIAYINGMEI TECHNOLOGY CO., LIMITED

Manufacturer address: 5/F G3 Building, Tianyouchuangke Industrial Zone, Fuyong, Bao'an District, Shenzhen, China

Section 2. Hazards Identification

No harm at the normal use. If contact the electrolyte in the battery, reference as follows:

Classification of the substance or mixture
Classification according to GHS
Acute toxicity, Oral (Category 4)
Acute toxicity, Dermal (Category 3)
Skin, irritate (Category 1B)
Eyes, irritate (Category 1)

Label elements

Labelling according to Regulation (EC) No 1272/2008[CLP]

Signal word: Danger

Hazard statement(s):
H311: Toxic in contact with skin.
H314: Causes severe skin burns and eye damage
H302: Harmful if swallowed.

Precautionary statement(s):

Response: P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and
water P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

**Disposal:**
P501: Dispose of contents/container in accordance with local/national regulations

**Other hazards**
No information available.

### Section 3. Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>Composition</th>
<th>CAS NO</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt oxide</td>
<td>1307-96-6</td>
<td>&lt; 30 %</td>
<td></td>
</tr>
<tr>
<td>Manganese dioxide</td>
<td>1313-13-9</td>
<td>&lt; 30 %</td>
<td></td>
</tr>
<tr>
<td>Nickel oxide</td>
<td>1313-99-1</td>
<td>&lt; 30 %</td>
<td></td>
</tr>
<tr>
<td>Carbon</td>
<td>7440-44-0</td>
<td>&lt; 30 %</td>
<td></td>
</tr>
<tr>
<td>Electrolyte (*)</td>
<td>--</td>
<td>&lt; 20 %</td>
<td></td>
</tr>
<tr>
<td>Polyvinylidene fluoride (PVdF)</td>
<td>24937-79-9</td>
<td>&lt; 10 %</td>
<td></td>
</tr>
<tr>
<td>Aluminium foil</td>
<td>7429-90-5</td>
<td>2 - 10 %</td>
<td></td>
</tr>
<tr>
<td>Copper foil</td>
<td>7440-50-8</td>
<td>2 - 10 %</td>
<td></td>
</tr>
<tr>
<td>Aluminium and inert materials</td>
<td>--</td>
<td>5 - 10 %</td>
<td></td>
</tr>
</tbody>
</table>

Full text of each relevant Rphrase can be found in heading 16.

**Further Information**

**For information purposes:**

(*) **Main ingredients:** Lithium hexafluorophosphate, organic carbonates

Because of the cell structure the dangerous ingredients will not be available if used properly. During charge process a lithium graphite intercalation phase is formed.

**Mercury content:** Hg < 0.1mg/kg

**Cadmium content:** Cd < 1mg/kg

**Lead content:** Pb < 10mg/kg
Section 4. First Aid Measures

Description of first aid measures
General information No special measures required.

After eye contact
Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.

After skin contact
Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occurs, get medical attention.

After inhalation
Remove victim to fresh area. Administer artificial respiration if breathing is difficult. Seek medical attention.

After swallowing
Do not induce vomiting. Get medical attention.

Information for doctor:

Indication of any immediate medical attention and special treatment needed
No further relevant information available.

Section 5. Fire Fighting Measure

Flammability: Not available.

Extinguishing media
Suitable extinguishing agents
Use extinguishing agent suitable for local conditions and the surrounding environment
Such as dry powder, CO 2.

Special hazards arising from the substance or mixture
Battery may burst and release hazardous decomposition products when exposed to a fire situation. Lithium ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature(>150°C(302°F)), when damaged or abused (e.g. mechanical damage or electrical overcharging); may burn rapidly with
flare-burning effect; may ignite other batteries in clothes proximity.

Advice for firefighters

**Protective equipment:** Wear self-contained respirator. Wear fully protective impervious suit.

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**Section 6. Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

**Environmental precautions**
Do not allow material to be released to the environment without proper governmental permits.

**Steps to be taken in case material is spilled or released**
Remove ignition sources, evacuate area. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, placed the spilled material into a suitable disposal container. Keep spilled material out of sewers, ditches and bodies of water.

**Waste disposal method**
All waste must refer to the United Nations, the national and local regulations for disposal.

**Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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**Section 7. Handling and storage**

**Handling**

**Precautions for safe handling**
Consumption of food and beverage should be avoided in work areas. Wash hands with soap and water before eating, drinking. Ground containers when transferring liquid to prevent static accumulation and discharge.

**Information about fire and explosion protection**
Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

**Conditions for safe storage, including any incompatibilities**

**Requirements to be met by storerooms and receptacles**

Store in a cool, dry, well-ventilated place.

**Information about storage in one common storage facility**

Keep away from heat, avoiding the long time of sunlight.

**Further information about storage conditions**

Keep container tightly sealed.

**Specific and use**

No further relevant information available.

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### Section 8. Exposure Controls, Person Protection

**Control parameters:**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Risk Codes</th>
<th>Hazard</th>
<th>Exposure Controls/Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt oxide</td>
<td>R22;R43; R50/53</td>
<td>Xn(Harmful) N(Dangerous for the environment)</td>
<td>0.1 mg/m³ (TWA)</td>
</tr>
<tr>
<td>Manganese (VI) oxide</td>
<td>R20/22</td>
<td>Xn(Harmful)</td>
<td>Airborne Exposure Limits: - OSH Permissible Exposure Limit (PEL): 5 mg/m³ Ceiling for manganese compounds as Mn - ACGIH Threshold Limit Value (TLV): 0.2 mg/m³ (TWA) for manganese, elemental and inorganic compounds as Mn</td>
</tr>
<tr>
<td>Nickel oxide</td>
<td>R43,R49, R53</td>
<td>T(Toxic)</td>
<td>Airborne Exposure Limits: For Nickel, Metal and Insoluble Compounds, as Ni: - OSHA Permissible Exposure Limits (PEL) -1 mg/m³ (TWA). For Nickel, Elemental / Metal: - ACGIH Threshold Limit Value (TLV) -1.5 mg/m³ (TWA), A5 - Not suspected as a human carcinogen. For</td>
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<tr>
<td>Nickel, Insoluble Compounds, as Ni:</td>
<td>-ACGIH Threshold Limit Value (TLV)</td>
<td>-0.2 mg/m³ (TWA), A1 - Confirmed human carcinogen</td>
<td></td>
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<tr>
<td>Carbon</td>
<td></td>
<td>Airborne Exposure Limits:</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>-OSHA Permissible Exposure Limits (PELs): activated carbon</td>
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<td></td>
<td></td>
<td>(graphite, synthetic):</td>
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<td></td>
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<td>Total particulate = 15 mg/m³</td>
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<tr>
<td>Aluminium foil</td>
<td>R17, R15, R36/38, R10, R67, R65, R62, R51/53, R48/20, R38, R11</td>
<td>F(Highly Flammable) Xn(Harmful) Xi(Irritant)</td>
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<tr>
<td></td>
<td></td>
<td>Airborne Exposure Limits:</td>
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<td></td>
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<td>-OSHA Permissible Exposure Limit (PEL): 15 mg/m³ (TWA) total dust</td>
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<td></td>
<td></td>
<td>and 5 mg/m³ (TWA) repairable fraction for Aluminum metal as Al</td>
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<td></td>
<td></td>
<td>-ACGIH Threshold Limit Value (TLV): 10 mg/m³ (TWA) Aluminum</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>metal dusts</td>
<td></td>
</tr>
<tr>
<td>Copper foil</td>
<td>R11, R36, R37, R38</td>
<td>F(Highly Flammable) Xn(Dangerous for the environment) Xi(Irritant)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Copper Dust and Mists, as Cu:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-OSHA Permissible Exposure Limit (PEL) -1 mg/m³ (TWA)</td>
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<tr>
<td></td>
<td></td>
<td>-ACGIH Threshold Limit Value (TLV) -1 mg/m³ (TWA) Copper</td>
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<td></td>
<td></td>
<td>Fume:</td>
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<tr>
<td></td>
<td></td>
<td>-OSHA Permissible Exposure Limit (PEL) -0.1 mg/m³ (TWA)</td>
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<tr>
<td></td>
<td></td>
<td>-ACGIH Threshold Limit Value (TLV) -0.2 mg/m³ (TWA)</td>
<td></td>
</tr>
<tr>
<td>Polyvinylidene fluoride (PVdF)</td>
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</tr>
</tbody>
</table>

**Exposure controls**

**Personal protective equipment**

**General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.

**Respiratory Protection**
Use suitable respirator when high concentrations are present.

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### Section 9. Physical and Chemical Properties

**Appearance**
- Form: Solid
- Color: Various
- Odor: Odourless

Important health, safety and environmental information
- PHValue: n.a.
- Flash point: n.a

Lower explosion limits: n.a.
- Vapour pressure: n.a.
- Density: n.a.
- Water solubility: Insoluble
- Ignition temperature: n.a.

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### Section 10. Stability and Reactivity

**Reactivity:** Will not occur.
**Chemical stability:** Stable.
**Possibility of hazardous reactions:** Will not occur.
**Conditions to Avoid**
Flames, sparks, and other sources of ignition, incompatible materials.
**Incompatibilities**
Oxidizing agents, acid, base.
**Hazardous Combustible Products**
Carbon monoxide, carbon dioxide, lithium oxide fumes.
**Hazardous Polymerization**
N/A.
Section 11. Toxicological Information

Information on toxicological effects
Acute toxicity
LD/LC50 Values relevant for classification:
Not available.
Primary irritant effect
No further relevant information available.

Sensitization:
No further relevant information available.

Additional toxicological information:
Toxicological, metabolism and distribution:
No further relevant information available.
Acute effects (acute toxicity, irritation and corrosivity):
No further relevant information available.
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):
No further relevant information available

Section 12. Ecological Information

Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Behaviour in environmental systems
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Ecological effects

Additional ecological information
General notes: Do not allow material to be released to the environment without proper governmental permits.
Other adverse effects: No further relevant information available.

Section 13. Disposal Considerations

Waste treatment methods
Recommendation:
Consult state, local or national regulations to ensure proper disposal.
Uncleaned packaging
**Recommendation:** Disposal must be made according to official regulations.

**Section 14. Transport Information**

According to the Packing Instruction 965~967 IATA DGR 59 Edition for transportation, or the special provision 188 of IMDG, or the "<Recommendations On The Transport Of Dangerous Goods-Model Regulations>" (18).

More information concerning shipping, testing, marking and packaging can be obtained from Label master at [http://www.labelmaster.com](http://www.labelmaster.com).

Separate Lithium-ion batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles and wet by rain.

**Transport Fashion:** By air, by sea, by railway, by road.

**Section 15. Disposal Considerations**

**U.S. Regulations**
**National Inventory TSCA**

All of the components are listed on the TSCA inventory.

**SARA**
To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

**Regulatory information EU**
**Labeling**
Hazardous components which must be listed on the label

As an article the product does not need to be labeled in accordance with EC directives or respective national laws.

**EU regulatory information**
**1999/13/EC (VOC):**
Section 16. Additional Information

Abbreviations and acronyms
CLP: EU regulation (EC) No 1272/2008 on classification, labelling and packaging of chemical substances and mixtures.
CAS: Chemical Abstracts Service (Division of the American Chemical Society).
ACGIH: American Conference of Governmental Industrial Hygienists
TLV: Threshold Limit Value
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods
LC50: lethal concentration, 50 percent kill
LD50: lethal dose, 50 percent kill
TWA: Time Weighted Average
TSCA: United States Toxic Substances Control Act Section 8(b) Inventory
EINECS: European Inventory of Existing Commercial Chemical Substances
Model: Recommendations on the Transport of Dangerous Goods Model Regulations: Regulations

Full text of R-phrases referred to under sections 2 and 3
R10  Flammable.
R20/22 Harmful by inhalation and if swallowed.
R22 Harmful if swallowed.
R34 Causes burns.
R40 Limited evidence of a carcinogenic effect.
R43 May cause sensitization by skin contact.
R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R49 May cause cancer by inhalation.
R50 Very toxic to aquatic organisms.
R53 May cause long-term adverse effects in the aquatic environ

Declare to reader
The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.
Appendix for EUT PHOTOS
****End of report****
China National Accreditation Service for Conformity Assessment
LABORATORY ACCREDITATION CERTIFICATE

(Registration No. CNAS L5885 )

Shenzhen Tianhai Test Technology Co., Ltd.
1/F., East Building, Yalian Haoshida Industrial Zone, No.5022, Wuhe Road,
Bantian Street, Longgang District, Shenzhen, Guangdong, China

is accredited in accordance with ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence to undertake testing service as described in the schedule attached to this certificate.

The scope of accreditation is detailed in the attached schedule bearing the same registration number as above. The schedule form an integral part of this certificate.

Date of Issue: 2015-12-14
Date of Expiry: 2018-12-13
Date of Initial Accreditation: 2012-10-29

Signed on behalf of China National Accreditation Service for Conformity Assessment

China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People’s Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is a signatory of the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement (ILAC MRA) and the Asia Pacific Laboratory Accreditation Cooperation Mutual Recognition Arrangement (APLAC MRA). The validity of the certificate can be checked on CNAS website at http://www.cnas.org.cn/english/findanaccreditedbody/index.shtml